1: Science. 1995 Mar 10;267(5203):1494-8.

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Involvement of CRAF1, a relative of TRAF, in CD40 signaling.

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CD40 is a receptor on the surface of B lymphocytes, the activation of which leads to B cell survival, growth, and differentiation. A yeast two-hybrid screen identified a gene, CRAF1, encoding a protein that interacts directly with the CD40 cytoplasmic tail through a region of similarity to the tumor necrosis factor-alpha (TNF-alpha) receptor-associated factors. Overexpression of a truncated CRAF1 gene inhibited CD40-mediated up-regulation of CD23. A region of CRAF1 was similar to the TNF-alpha receptor-associated factors TRAF1 and TRAF2 and so defined a shared TRAF-C domain that was necessary and sufficient for CD40 binding and homodimerization. The CRAF1 sequence also predicted a long amphipathic helix, a pattern of five zinc fingers, and a zinc ring finger. It is likely that other members of the TNF receptor superfamily use CRAF-related proteins in their signal transduction processes.

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